

The Genus *Dasytidius* SCHILSKY, 1896: Species from North Africa and Europe West of the Balkans

(Coleoptera, Melyridae)

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Abstract

The treatise deals with *Dasytidius*-species of North Africa and Europe west of the Balkans. Altogether 17 species are mentioned, from which 13 are placed in this genus for the first time: *Dasytidius petrowi* (PIC) comb. n., *D. medius* (ROTTENBERG) comb. n., *D. melitensis* (BOURGEOIS) comb. n., *D. crenulatus* (PIC) comb. n., *D. diversimembris* (PIC) comb. n., *D. vestitus* (KIESENWETTER) comb. n., *D. bourgeoisi* (SCHILSKY) comb. n., *D. gracilis* (ESCALERA) comb. n., *D. ragusai* (PROCHÁZKA) comb. n., *D. syrticus* (BOURGEOIS) comb. n., *D. nigrofemoralis* (PIC) comb. n., *D. sparsepubens* (PIC) comb. n. Four other species are described as new to science: *Dasytidius normandi* sp. n. (Tunis), *D. constantini* sp. n. (Morocco), *D. otini* sp. n. (Morocco), and *D. pardoii* sp. n. (Morocco). Eight new synonyms are proposed: *D. gestroi* SCHILSKY, 1897 syn. n. to *D. ragusai* (PROCHÁZKA, 1895); *D. neglectus* SCHILSKY, 1897 syn. n. to *D. syrticus* (BOURGEOIS, 1885); *D. sedilloti* BOURGEOIS, 1885, *D. squamatus* KIESENWETTER, 1871, *D. obesus* KIESENWETTER, 1871, *D. beckeri* KIESENWETTER, 1871, all syn. n. to *D. medius* (ROTTENBERG, 1870); *D. wartmanni* REITTER, 1897 syn. n. to *D. nigrofemoralis* (PIC, 1894); *D. convexus* PIC, 1928 syn. n. to *D. crenulatus* (PIC, 1924).

Introduction

This paper is the fourth and last part of the whole revision of the genus *Dasytidius* SCHILSKY, 1896 (preceding parts are published or in press, see MAJER, 1989b, and in press a, b).

The genus *Dasytidius* SCHILSKY, originally only a subgenus of *Dasytiscus* KIESENWETTER, was given the full generic rank and its conception was re-defined in the generic classification of the tribe Chaetomalachiini (MAJER 1989a). The morphology of the internal copulatory organs of females as well as their dissection technique are mentioned in detail in a paper on Balkan and Turkey *Dasytidius*-species (MAJER 1989b).

Redescriptions of the species mentioned in this paper (their rejection, or, in the contrary, restoration) have been the most uneasy task within the whole genus *Dasytidius*, complete KIESENWETTER'S "Malacodermata" have been lost and their few-lines descriptions resembles those made by PIC. In addition, SCHILSKY'S *Dasytiscus bourgeoisi* and a specimen studied by him when redescriving KIESENWETTER'S *Dasytiscus obesus*, were lost, too. On top of it, KIESENWETTER'S *D. beckeri* and perhaps also *D. obesus* were considered by BOURGEOIS and PIC to occur in Russia because of lacking locality data in their descriptions.

With the respect to the stability of nomenclature, no way has been chosen but arbitrary synonymization of KIESENWETTER'S obscure species with *Dasytiscus medius* ROTTENBERG, 1870; irrespective of the KIESENWETTER'S descriptions which do not fully correspond with *D. medius*.

Abbreviations used

BMNH	= British Museum, Nat. Hist., London (U. K.)
IPE	= Institut für Pflanzenschutzforschung, Eberswalde (GDR)
IZW	= Instytut Zoologiczny PAN, Warszawa (Poland)
KMB	= Author's private collection, Brno (Czechoslovakia)
MCM	= Museo Civico di Storia Naturale, Milano (Italy)
MHNP	= Muséum National d'Histoire Naturelle, Paris (France)
MNG	= Museo Civico di Storia Naturale „Giacomo Doria“, Genova (Italy)
MUH	= Museum of the University, Helsinki (Finland)
NHMB	= Naturhistorisches Museum Basel (Switzerland)
NMP	= Národní Muzeum, Praha (Czechoslovakia)
TMB	= Természettudományi Múzeum, Budapest (Hungary)
RC	= Private collection of Dr. R. Constantín, Saint-Lô (France)
ZMB	= Zoologisches Museum, Humboldt Universität, Berlin (GDR)
ZSM	= Zoologische Staatssammlung, München (FRG)

Key to species

1. Femora distinctly darkened 2
 - Legs completely light testaceous 10
2. Apterous species 3
 - Winged species 4
3. Antennal segments 6 and 8 distinctly smaller than adjoining. Sides of pronotum strongly arcuate (Fig. 4). 4. *D. melitensis* (BOURG.)
 - Antennal segments 6 and 8 not smaller than adjoining. Sides of pronotum less arcuate (Fig. 5). 5. *D. crenulatus* (PIC).
4. Legs completely rufopiceous to black 2. *D. medius* (ROTTB.)
 - Tibiae always lighter than femora 5
5. Pubescence long, dense, semi-villose, also on pronotum which is strongly transverse (Fig. 16) 16. *D. sparsepubens* (PIC).
 - Pubescence shorter, never semi-villose, pronotum less transverse 6
6. Pubescence on elytra apparently single, pronotal sides more or less arcuate 7
 - Pubescence on elytra distinctly dual, semi-erect hairs evident, pronotal sides nearly straight (Fig. 7). 7. *D. constantini* sp. n.
7. Small species (2.4 mm). Antennal joints small, almost moniliform. Only ♂♂ 12. *D. gracilis* (ESCALERA)
 - Larger species (2.9–3.2 mm). Antennal segments stouter, more transverse 8
8. Pronotum with distinctly denticulate side margins. Elytra parallelsided, subtruncate at apex (Fig. 3). *D. normandi* sp. n. ♂♂
 - Pronotum with indistinctly denticulate side margins. Elytra weakly widened posteriorly, apex rounded (Fig. 15). 15. *D. nigrofemoralis* (PIC)
9. Pronotum with straight side margins (Figs 12, 10). Elytra nearly parallelsided in females 10
 - Pronotum more or less arcuate at sides. Elytra nearly always widened posteriorly in females . . 11

10. Large species (3.1–3.4 mm). Antennal segments strongly transverse (Fig. 26) 10. *D. bourgeoisi* (SCHILSKY), ♀♀.
 – Small species (2.3–2.6 mm). Antennal segments small, finely moniliform (Fig. 28) 12. *D. gracilis* ESCALERA), ♀♀.
11. Antennal segments strongly transverse, 6 and 8 never smaller than adjoining 12
 – Antennal joints less transverse, 6 and 8 mostly smaller than adjoining 13
12. Side pronotal margins very strongly arcuate (Fig. 8). Antennal segments stouter (Fig. 24) 8. *D. otini* sp. n.
 – Pronotum broadest at basal third, narrowing anteriorly (Fig. 9). Antennal segments fine 9. *D. vestitus* (KIESW.). (Fig. 25).
13. Very small species (♂♂ 1.9–2.3 mm; ♀♀ 2.1–2.5 mm). Pronotum mostly broadest across anterior third (Figs 13, 17), chiefly in males 13. *D. ragusai* (PROCH.)
 – Larger species (2.8–3.4 mm). Pronotum broadest across middle or nearer base 14
14. Pubescence very dense, nearly scale-shaped, covering upper body surface. 1. *D. petrowi* (PIC)
 – Pubescence less dense, coloration of upper surface well visible. 15
15. Pronotum broadest beyond middle (Figs 14, 18), antennal segments scarcely transverse 14. *D. syrticus* (BOURG.), ♂♂.
 – Pronotum broadest across middle, sides evenly arcuate 16
16. Pronotal sides more arcuate (Fig. 11). 11. *D. pardoi* sp. n.
 – Pronotal sides less arcuate (Fig. 6). 6. *D. diversimembris* (PIC).

1. *Dasytidius petrowi* (PIC, 1923) comb. n.
 (Figs 1, 20, 60)

Dasytiscus (*Dasytidius*) *petrowi* PIC, 1923:9

Densely pubescent species resembling *D. emgei* (REITTER), female internal copulatory organs same but male terminalia different.

Black, weakly lustrous (covered with dense pubescence), legs testaceous to rufotestaceous (apex of pretarsi and claws darkened); scape and mouthparts completely black, antennal segments 2–3 (–5) testaceous, 4–11 gradually darkened, bases of all segments always lighter. Integument very densely and finely punctate to scabrose, pubescence very dense, rather scale-like, unicolorous, light cinereous, whitish, or yellowish, clearly single, decumbent, but, if carefully examined, somewhat more elevated subseriate hairs may be observed on elytra. Head with slightly prominent eyes, surface densely and finely scabrose to pustulate; antenna (Fig. 20) with penultimate segments distinctively transverse. Pronotum arcuate at base which passes into arcuate sides, these are mostly somewhat angulate, broadest spot of pronotum situated nearer base so that pronotum appears more convergent forwards than backwards; pronotal apex nearly straight, marginal denticles fine and sparse, but distinct; marginal fringe fine and distinct, pubescence of upper surface arranged into an indistinct V-shaped line and towards a point near base. Elytra with dense, very abbreviate, fine but distinct marginal fringe, side margins strongly bordered (nearly canaliculate) up to distal part, puncturation more distinct than on head and pronotum, upper surface therefore more lustrous; apex of elytra subtruncate, sutural angles rounded respectively.

♂ (Fig. 1). Pronotum more slender, elytra parallelsided and less convex, tips truncate and rounded respectively. Pygidium suboblong in outline. Sternum VII shallowly but distinctly emarginate and

impressed mediodistally; VIII with slender median process which is distinctly forked at base. Spicular fork almost broad. Tegmen nearly as in *D. medius* (ROTTENBERG) (see Fig. 48). Phallus in side view (Fig. 60) resembles that in *D. emgei* (REITTER); internal sac with special structure. Length 2.5–3.0 mm, width 0.8–1.0 mm.

♀. Pronotum more transverse, elytra widened and strongly convex posteriorly. Pygidium nearly semicircular. Sternum VII briefly produced at apex. Internal copulatory organs completely membranous. Length 3.1–3.7 mm, width 1.2–1.4 mm.

Distribution: Egypt, Libya

Types: "Mariout, A. PETROW leg., coll. PETROW et PIC" (PIC, 1923). They have not been found, one "metatype" labelled "Ikingi, Mariout, 16. 3. 35, Egitto, W. WITTMER" was used to re-evaluate this species (in MHNP).

Other material. Egypt: Ikingi, Mariout, 16. 3. 1935, W. WITTMER leg. (28 MCM, 3 KMB). — idem, Sallum, 24. 3. 1933, H. PRIESNER leg. (4 MCM, 1 MHNP). — Libya: Gharian, 22. 3. 1926, A. SCHATZMAYR leg. (21 MCM, 2 MHNP, 2 BMNH, 2 KMB).

Remarks. The species has been very often erroneously determined as *D. syrticus* BOURG., which is a distinct species although known from females alone.

2. *Dasytidius medius* (ROTTENBERG, 1870) comb. n.

(Figs 2, 21, 48, 61, 77)

Dasytiscus medius ROTTENBERG, 1870: 244; REITTER, 1885: 242; BOURGEOIS, 1885: 256; PORTA, 1929: 124.

Dasytiscus pexus KIESENWETTER, 1871: 85; KÜSTER, 1873: 28

Dasytiscus (Dasytidius) medius: PIC, 1937: 53

Dasytiscus Sedilloti BOURGEOIS, 1885: 256, 268, Fig. 4, syn. n.

Dasytiscus Theresae PIC, 1896: 48; 1897: 312; SCHILSKY, 1897: Nachtrag

Dasytiscus (Dasytidius) Sedilloti var. *Theresae*: PIC, 1937: 55

Dasytiscus squamatus KIESENWETTER, 1871: 86, syn. n.; KÜSTER, 1873: 30; 1874: 38; BOURGEOIS, 1885: 256

Dasytiscus (Dasytidius) squamatus: PIC, 1937: 55

Dasytiscus obesus KIESENWETTER, 1871: 85 (note 1), syn. n.; REITTER, 1885: 242; BOURGEOIS, 1885: 256

Dasytiscus (Dasytidius) obesus: SCHILSKY, 1906: 18

Dasytiscus Beckeri KIESENWETTER, 1871: 86, syn. n.; KÜSTER, 1873: 29; REITTER, 1885: 243; BOURGEOIS, 1885: 243

Dasytiscus (Dasytidius) Beckeri: PIC, 1937: 52

Easily distinguishable species in combination being winged and having dark extremities.

Coloration black, surface weakly lustrous, with dark, bronze, violaceous, greenish to cupreous tinge; extremities (incl. mouthparts) piceous (quite exceptionally rufopiceous to black), antennal pedicel brightly orange in contrast to adjoining segments; integument finely and densely punctate; pubescence pale (whitish to yellowish), not very dense, fine, sometimes rather scale-shaped, moderately long, apparently single and completely decumbent, but more elevated, subseriatly admixed hairs may be observed. Head produced anteriorly, eyes relatively big and prominent; penultimate antennal segments transverse (Fig. 21). Pronotum with arcuate base, hind angles completely rounded, sides strongly arcuate to subangulate, apex straight, marginal denticles very fine and regular, but sharply defined; marginal fringe fine and regular; pubescence arranged towards a longitudinal median line and towards a point near base; surface as rugosely and densely sculptured as head. Elytra strongly transversely convex so that side margins not well visible from above, the margins finely bordered, apex subtruncate, sutural angles obtuse; upper surface with deep, regular and dense puncturation, punctures as wide as subconvex intervals; marginal fringe strongly reduced, fine and abbreviate, nearly indistinct.

♂ (Fig. 2). Head larger, eyes more prominent; elytra parallelsided, more truncate at apex, sutural angles less rounded. Pygidium suboblong. Sternum VII shallowly but distinctly emarginate at apex, VIII with long median process which is forked at base. Spicular fork with fork proper widened proximally, spiculae rather parallelsided. Tegmen (Fig. 48) strongly constricted in middle. Phallus in side

view (Fig. 61) gradually tapering apex; internal sac with tiny transparent spinules. Length 1.9–2.6 mm, width 0.7–0.9 mm.

♀. Head smaller, eyes less prominent; elytra widened and strongly convex posteriorly, scarcely truncate at apex; sutural angles completely rounded. Pygidium nearly trapeziform. Sternum VII with subarcuate hind margin. Internal copulatory organs completely membranous (Fig. 77). Length 2.1–3.0 mm, width 0.7–1.2 mm.

Distribution: Algeria, Tunis, Morocco (?).

Types. *Dasytiscus medius* (in IPE): Lectotype, ♂, "Syrakus, ROTTENBERGER" (printed, white label); "n. sp." (handwritten by pencil); "*Dasytiscus medius* ROTTB." (ROTTENBERGER'S MS). Paralectotypes, 2 ♀. with data as Lectotype.

Dasytiscus pexus, Types lost, KIESENWETTER (1871) gives the sole specimen from Sicily. Undoubtedly identical with *D. medius*.

Dasytiscus sedilloti (in MHNP): "Tunisie, Hammam-Lif, en Mai SÉDILLOT et LÉVEILLÉ" (BOURGEOIS, 1885), not studied, but undoubtedly identical with *D. medius*.

Dasytiscus theresae (in MHNP): "Algérie: Djelfa" (PIC, 1896), not studied but undoubtedly identical with *D. medius*.

Dasytiscus squamatus. Types lost. KIESENWETTER (1871) gives: "Von LETHIERRY in Algier gesammelt". According to the description, undoubtedly identical with *D. medius*.

Dasytiscus obesus. Types lost. KIESENWETTER (1871) did not give locality data, but SCHILSKY (1906) gives a specimen examined by him labelled "Algier" and corresponding with KIESENWETTER'S description. This specimen has not been found in SCHILSKY'S collection.

Dasytiscus beckeri. Types lost. KIESENWETTER (1871) gives "Von LETHIERRY in Algier gesammelt". BOURGEOIS (1885) gives erroneously "Russie mérid.". Characters given by KIESENWETTER do not allow any reliable evaluation of this species.

Other material (about 200 spec.). Tunis: "Tunis" (ZMB, MUH, BMNH, MNG, KMB, IPE). – Le Kef, NORMAND leg. (NHMB, ZSM, KMB, IPE). – TebourSouk (MUH). – Zaghuan, 1. 4. 1924, H. LINDBERG leg. (MUH). – Le Belvédère (ZMB, NHMB). – Hammam, el Lif, 28. 4. 1883, in copula (MNG). – Fond. Djedid (MCM).
Algeria: Djelfa, 1897, PIC leg. (ZMB, ZSM, NHMB, KMB).

Morocco: "Morocco, REITTER" (KMB).

3. *Dasytidius normandi* sp. n.

(Figs 3, 35, 49, 62)

Belongs to the *medius*-group; differs from *D. medius* and *D. crenulatus* in being winged, from *D. medius* in light tibiae and tarsi.

Upper surface with dark (bronze, violaceous, or brassy) lustre, femora piceous, tibiae and tarsi rufotestaceous or rufous, seldom fuscous, tibial spurs and apex of pretarsi always dark; palps and antennal scape black, segments 2–3 (–5) rufous, following gradually darkened, 8–11 always black. Integument with very dense texture, semi-mat (head and pronotum), elytra more lustrous, pubescence light (whitish to yellowish), fine, not covering upper surface, or nearly semi-villose and somewhat covering upper surface as in *D. petrowi* (PIC). Head with pubescence arranged towards median longitudinal line, antennal segments stouter and less serrate than in *D. medius* (ROTTB.) (see Fig. 21); surface with fine and dense coriaceous texture. Pronotum arcuate at base, subarcuate at sides, apex straight, hind angles broadly rounded; upper surface as on head; side margins with dense, short, but distinctive denticles; pubescence arranged towards a point very close to base, marginal fringe distinct. Elytra with very dense, but shallow puncturation, punctures confluent into transverse wrinkles, intervals almost wider than punctures, subconvex, with microsculpture; apex more or less truncate, pubescence seemingly single but in fact dual, marginal fringe short, fine, but distinct.

♂ (Fig. 3). Parallelsided, elytra truncate at apex, sutural angles more rounded; antennal joints stouter. Pygidium strongly transverse, about twice as wide as long, suboblong. Sternum VII weakly emar-

ginate and impressed at hind margin, VIII with median process forked at base (Fig. 35). Spicular fork stout. Tegmen (Fig. 49) slender, arcuate at sides of both base and apex. Phallus (Fig. 62) very similar to that in *D. melitensis* (BOURGEIS) but internal sac with several tiny transparent spinules. Length 2.6–3.1 mm, width 0.9–1.0 mm.

♀. Widened posteriorly, elytra not truncate at apex, sutural angles scarcely rounded; antennal segments smaller. Pygidium semicircular to oblong. Sternum VII nearly straight at apex. Seminal duct membranous. Length 2.9–3.1 mm, width 1.0–1.2 mm.

Distribution: Tunis

Types. Holotype, ♂ (ZSM), "Zarzis Tunisie, 6.44, R. DEMOFLYS, 9320"; "*Dasytiscus* sp. x ? vid. Dr. NORMAND, l'ex don ou Dr." — Paratypes, 3 spec. (RC), same data as Holotype. — 5 spec. (3 RC, 2 KMB). "Mahbouine, Jerba — Tunisie, 5. 4. 78, CONSTANTIN".

Derivatio nominis; named in the memory of Dr. H. NORMAND.

4. *Dasytidius melitensis* (BOURGEIS, 1885) comb. n.

(Figs 4, 63, 78)

Dasytiscus melitensis BOURGEIS, 1885; 256, 270

Dasytidius (Dasytidius) melitensis: SCHILSKY, 1896; N, 81; PORTA, 1929: 124

Small, apterous species, most similar to *D. crenulatus* (PIC).

Black, upper surface with dark bronze lustre; femora piceous to rufopiceous, tibiae and tarsi always distinctly lighter, i. e. testaceous to rufotestaceous, apex of pretarsi and claws darkened as usual in most *Dasytidius*-species; mouthparts and antennal segment 1 blackish, 2–3 orange-testaceous, 4–11 gradually darkened. Integument with dense and fine texture; pubescence withish, fine (distinctly finer on pronotum than on elytra), apparently single and only decumbent but elytra with dense, somewhat more erect hair, these are inconspicuously subseriately admixed. Head with moderately prominent eyes, surface with dense and fine, irregular texture; antenna nearly as in *D. medius*, segments 6 and 8 smaller than adjoining; pubescence as fine as on pronotum. Pronotum strongly convex, weakly transverse, base and apex subarcuate, sides strongly arcuate, nearly subangulate; upper surface with fine texture, less rugose than on head; pubescence arranged towards median longitudinal line, marginal denticles strongly reduced, side margins appear sometimes glabrous, marginal fringe very fine but distinct. Elytra with reduced humera and subarcuate sides, apices more or less rounded respectively; upper surface less deeply punctate than in *D. medius*; pubescence more distinct and denser than on head and pronotum, rather semi-villose and silverish, marginal fringe very fine, indistinct; side elytral margins hard to see due to strong transverse convexity of upper elytral surface.

♂ (Fig. 4). Not widened posteriorly, extremities stouter. Elytral apices subtruncate and rounded respectively. Pygidium strongly transverse, subtrapeziform, apex weakly emarginate. Sternum VII shallowly emarginate at apex, emargination shallower than in *D. medius*. Sternum VIII, spicular fork and tegmen nearly as in *D. medius*. Phallus in side view (Fig. 63) more incurved; internal sac nearly as in *D. medius*. Length 2.0–2.2 mm, width 0.7–0.8 mm.

♀. Widened posteriorly, very strongly convex, extremities more slender. Elytral apices slightly rounded respectively. Pygidium nearly semicircular. Sternum VII scarcely produced medioapically. Internal copulatory organs completely membranous (Fig. 78). Length 2.2–2.4 mm, width 0.9–1.0 mm.

Distribution: Malta, Sicily

Types (MHNP). The sole specimen, donated to BOURGEIS by M. de MARSEUL, labelled "Malta" (BOURGEIS, 1885), has not been examined since the species is sufficiently redescribed by subsequent authors.

Other material. "Malta" (2 NHMB, 3 KMB, 6 TMB, 4 ZMB, 15 BMNH). — Mosta, 11. 4. 1966, C. J. FORD leg. (1 BMNH). — Wied Wannota, V. 1983, J. L. SCHEMBRI leg. (MCM, Liberti, letter communication). — Sicily: Girgenti, 8. 4. 1978 (MCM, Liberti, letter communication).

5. *Dasytidius crenulatus* (PIC, 1924) comb. n.

(Figs 5, 36, 50, 64, 79)

Danacea crenulata PIC, 1924: 3 (♂)

Dasytiscus convexus PIC, 1928: 103 (♀), syn. n.

Apterous, strongly convex species, somewhat resembling *D. melitensis* (BOURG.) or *D. medius* (ROITB.), but antennal segments 6 and 8 not smaller than adjoining.

Coloration black, upper surface with feeble dark aeneous lustre; femora piceous or rufopiceous, tibiae rusty, tarsi and apex of tibiae infusate, antenna piceous but pedicel rusty, segments 3–4 more or less lightened; pubescence whitish, very fine, not very dense, relatively long, decumbent, apparently single (but two kinds of pubescence on elytra may be defined). Head relatively big, eyes large, upper surface with dense, irregular, rather granulate texture, not lustrous, antennal segments 6–10 transverse, 6 and 8 not smaller than adjoining. Pronotum not transverse, base narrow, passing into subarcuate sides, apex nearly straight, both hind and front pronotal angles broadly rounded; upper surface as on head, marginal denticles sparse and short (about 12–14 at each side); pubescence completely decumbent, arranged towards a point at basal pronotal third, one abbreviate seta runs from each marginal denticle. Elytra strongly convex, subovate, humera strongly reduced, tips rounded respectively; humeri and side margins of elytra at the very apex denticulate respectively; upper surface with regular punctures, they are smaller and less distinct towards apex, intervals with microsculpture, as wide as punctures; pubescence less decumbent than on pronotum, more and less decumbent hair may be distinguished, side margins without a distinct marginal fringe.

♂. More slender; pronotum as long as wide; sides nearly straight; eyes more prominent; antennal segments stouter, elytral tips subtruncate. Pygidium strongly transverse, suboblong. Sternum VII arcuate and impressed at hind margin, median process of sternum VIII (Fig. 36) forked at base. Spicular fork ovoid in outline, walls slender. Tegmen shown (Fig. 50). Phallus in side view (Fig. 64) sinuate towards apex; internal sac with flat compressed formation being not heavily sclerotized. Length 2.2–2.4 mm, width 0.7–0.8 mm.

♀ (Fig. 5). Less slender; pronotum weakly transverse, sides arcuate; eyes less prominent; antennal segments more slender; elytral tips broadly rounded respectively. Pygidium nearly semicircular, basal corners filiform, long and incurved. Hind margin of sternum VII subarcuate. Seminal duct weakly sclerotized, spiral (Fig. 79). Length 2.8 mm, width 0.9 mm.

Distribution: Libya

Types. *Danacea crenulata* (NMHP). Holotype, ♂, Cirenaica, Tolmetta Dr. FESTA (PIC'S MS); "*Danacea crenulata* PIC" (PIC'S MS).

Dasytiscus convexus (MNG). Holotype, ♀, "Guarsciá, Cirenaica, 4–4–922" (SILVESTRI'S MS); "désiré" (PIC'S MS); "*Dasytiscus convexus* n. sp." (PIC'S MS).

Other material. Libya: Cirenaica, Regima, 11. 4. 1935, GRIDELLI leg. (1 MHNP), included in the type-series of *D. crenulata* but locality data are different.

6. *Dasytidius diversimembris* (PIC, 1937) comb. n.

(Figs 6, 22, 51, 65)

Dasytiscus (Dasytidius) diversimembris PIC, 1937: 52 (n. n. for *D. diversipes* PIC, 1922: 30 nec PIC, 1923: 19)

Dasytiscus (Dasytidius) diversipes PIC, 1922: 30

Species strongly resembling *D. vestitus* (KIESW.), but reliably distinguishable in the shape of antenna and terminalia.

Black, upper surface with greenish lustre; legs completely pale testaceous, apex of pretarsi darkened; antennal scape and mouthparts completely piceous, segments 2–3 (–4) testaceous, 4–11 gradually darkened but base of each always lighter. Integument densely and finely punctate with distinct microsculpture; pubescence whitish, relatively short, fine, moderately dense, dual, semi-erect hair subseriately admixed on elytra, marginal fringe not very distinct.

♂ (Fig. 6). Antenna (Fig. 22) with segments 4–10 subserrate but their inner angles more obtuse than in *D. vestitus* (of Figs 22 and 25); head with moderately prominent eyes, upper surface finely scabrose, not lustrous. Pronotum broadest across middle, rather quadrate; base and sides evenly arcuate or subarcuate; upper surface finely wrinkled and with almost granulate sculpture, marginal fringe fine, short, and sparse but distinct. Elytra parallelsided, narrowed apically, the very apex subtruncate but sutural angles well marked, upper surface with dense but shallow puncturation forming transverse wrinkles, intervals among punctures weakly shining.

Pygidium suboblong, apex weakly emarginate. Sternum VII with subarcuate hind margin. VIII with long and slender median process which is strongly dilated at base. Tegmen (Fig. 51) relatively slender, of the type of *D. vestitus* etc. Phallus in side view (Fig. 65) nearly parallelsided at distal half; internal sac with regular row of spinules. Length 2.3–2.6 mm, width 0.8–0.9 mm.

Distribution: Morocco, Algeria

Types (MHNP). Holotype, ♂, "type" (yellowish label); "ex Théry"; "Meknes el Ajiou"; "*D. diversipes* sp. n." (all labels with PIC's MS).

Other material. Morocco, Tanger, VI. 1909 (1 KMB).

7. *Dasytidius constantini* sp. n.

(Figs 7, 23, 52, 66)

Relatively slender species resembling in most aspects *D. vestitus* (KIESW.) or *D. diversimembris* (PIC), distinguishable from the both in the shape of pronotum and terminalia.

Black with greenish lustre; femora darkened (fuscous), tibiae and tarsi orange-testaceous; scape and mouthparts piceous, antennal segments 2–3 testaceous, 4–11 gradually darkened with light bases. Integument with fine and dense texture; pubescence light, not very dense; short and fine, dual, dense semi-erect hair subseriately intermixed on elytra; marginal fringe fine, on elytra it is hard to differ from suberect lateral hairs.

♂ (Fig. 7). Head with almost prominent eyes, surface densely scabrose; antenna subserrate, inner angles of segments subacute (Fig. 23). Pronotum narrowing forwards, arcuate at base, broadly rounded at hind angles, sides and apex nearly straight, side margins with several reduced denticles; surface rugose on sides, disc with scattered punctures; marginal fringe fine but distinct. Elytra parallelsided, apex evenly rounded, tips obtuse respectively; upper surface with very shallow puncturation and distinctive microsculpture, therefore little lustrous. Pygidium strongly transverse, oblong, sides somewhat converging, apex weakly emarginate. Sternum VII with subarcuate hind margin, VIII with long, very slender median process, forked at base. Spicular fork slender, long, spiculae arched. Tegmen relatively slender (Fig. 52). Phallus in sid view (Fig. 66) slightly sinuate distally, apex hooked; internal sac with two regular rows of spinules, basal row distinctly circular. Length 3.0 mm, width 1.0 mm.

Distribution: Morocco

Types (ZSM). Holotype, ♂, "Morocco, Rabat, 3.–4. 5. 26".

Derivatio nominis: dedicated to my friend, Dr. R. CONSTANTIN from Saint-Lô (France).

8. *Dasytidius otini* sp. n.

(Figs 8, 24, 37, 53, 67)

Similar to *D. vestitus* from which it differs in pronotum strongly arcuate at sides, antennal segments robust but not as serrate as in the latter, terminalia quite different.

Upper surface with light green or brassy lustre, extremities pale testaceous, apex of pretarsi and claws darkened; scape of antenna and terminal segment of maxillary palps darkened, at least at apex. Integument with dense texture, pubescence dual on elytra where semi-erect longer hair subseriately admixed; marginal fringe distinct on pronotum.

♂ (Fig. 8). Head with prominent eyes, upper surface with dense, coriaceous texture; antennal segments transverse, stout, obtusely serrate from joint 4 but inner angles rounded (Fig. 24). Pronotum transverse, base subarcuate, sides strongly rounded; upper surface with same texture as head but somewhat finer on disc, pubescence decumbent, arranged towards a point at base, side margins very finely, densely and regularly denticulate, marginal fringe distinctive. Elytra with indistinct flat puncturation passing into transverse wrinkles; marginal fringe indistinct, overlapped by semi-erect hairs of fundamental pubescence; sutural angles almost rounded, distinct.

Pygidium subquadrate in outline, sides subarcuate. Hind margin of sternum VII nearly straight. Median process of sternum VIII long, base widened (Fig. 37). Spicular fork with spiculae twice as long as fork proper. Tegmen shown (Fig. 53). Phallus (Fig. 67) slender, apex acuminate and incurved; internal sac with regular row of spinules, basally with two compact formations composed of coalescent spinules. Length 2.7–3.3 mm, width 0.9–1.1 mm. Female unknown.

Distribution: Morocco

Types. Holotype, ♂ (NMP), "Fès, 2–6–41, H. Otin". — Paratypes. 6 spec. (2 KMB, 4 RC), same data as Holotype. — 1 spec. (RC): "Fès-Lumière, 14. 6. 37, OTIN". — 1 spec. (RC): "Morocco, Volubilis, 350 m, 8. VI. 1974, Borys Malkin". — 1 spec. (RC): "Morocco, El Brauega, 14 km S of Taraoudant, 300 m, 30. V. 1974, Borys MALKIN leg.".

Derivatio nominis: dedicated to the collector, H. Otin.

9. *Dasytidius vestitus* (KIESENWETTER, 1863)

(Figs 9, 25, 54, 68–70, 80)

Dasytiscus vestitus KIESENWETTER, 1863: 625 (Note 2); BOURGEOIS, 1885: 254, 264; REITTER, 1885: 242

Dasytiscus (*Dasytidius*) *vestitus*: SCHILSKY, 1896: L, 71

Dasytiscus (*Dasytidius*) *vestitus* var. *Henoni* PIC, 1900: 88

Species resembling at the first sight *D. indutus* (KIESW.) but it is more slender, antenna strongly serrate, terminalia quite different.

Coloration black, upper surface with light lustre; legs testaceous, antennal segments 2–3 testaceous, 4–11 gradually darkened but bases of segments nearly always lightened, scape and mouthparts black, apex of pretarsi and claws only darkened. Integument semi-mat, finely but indistinctly punctate, intervals with microsculpture; pubescence yellowish to whitish, nearly semi-villose, moderately fine and long; evidently dual: more erect hairs subseriately admixed into decumbent pubescence; marginal fringe distinct. Sexes unlike in shape. Eyes moderately prominent. Pronotum transverse, widest at basal third, base subarcuate and weakly emarginate at sides; sides of pronotum broadly rounded at basal third, nearly straight and converging along two anterior thirds, apex straight, marginal denticles very fine and almost regular; upper surface with dense and fine texture, nearly dull, only disc with sparser puncturation and therefore more lustrous, fundamental pubescence nearly as in group 2 of *Danacea*. Elytra indistinctly punctate, rather transversely wrinkled, with fine texture, weakly lustrous, marginal fringe distinctive, pubescence nearly decumbent with semi-erect, seriatly admixed hairs.

♂ (Fig. 9). Parallelsided, extremities longer and stouter. Antenna long and stout, segments serrate, chiefly penultimate ones (Fig. 25). Pygidium nearly trapeziform. Sternum VII straight at apex, VIII with long median process which is briefly bifurcate at base. Spicular fork long and slender. Tegmen (Fig. 54) of a type of *D. indutus*. Phallus in side view (Figs 68–70) with round base and acuminate and incurved apex; internal sac with 4–5 stout and dark spines. Length 2.5–3.2 mm, width 0.9–1.1 mm.

♀. Widened posteriorly, extremities shorter and slender. Antenna much more slender and shorter than in male, segments not distinctly serrate. Pygidium strongly converging, apex weakly emarginate. Seminal duct sclerotized, with distinctive sculpture (Fig. 80). Length 2.8–3.2 mm, width 1.1–1.4 mm.

Distribution: Algeria, Morocco, Tunis

Types lost. Kiesenwetter (1863: 625) gives "Algier".

Other material (examined about 600 spec.). Algeria: Tell Atlas, Sour el Ghoulane, 10. 7. 1980, J. Strejček leg. (KMB). — Aïn Zaatout, Mt. Aurès, 1.–4. 6. 1971, Hoffer et Horák leg. (KMB). — Bouira, 10. 6. 1971, Hoffer et Horák leg. (KMB). — Djebel Chenora, 4. 7. 1980, J. Strejček leg. (KMB). — Djebel Djurdjura, 11. 6. 1973, Hoffer et Horák leg. (KMB). — Margueritte, V. 1893, Chobaut leg. (NHMB, MCM). — Boghar, V. 1897, Chobaut leg. (TMB, NHMB, ZMB). — Médea (ZMB, TMB). — Al-Djazair (Algier) (NHMB, ZMB, IPE, RC). — Dra el Mizan, Ancy leg. (IPE). — Batna, Champion leg. (BMNH). — El Guerrah, Champion leg. (BMNH). — Constantine, Champion leg. (BMNH). — "Lambese", Champion leg. (BMNH). — Valmy (10 km SE Oran), 30. 5. 1887 (RC). — Sidi bel-Abbés, VII. 1887 (RC). — Sidi Harazem, 25. 6. 1939, Otin leg. (RC).

Morocco: Fés, 350 m, Alluad leg. (BMNH). — idem, Jb. Tratt, 15. 6. 1939, Otin leg. (RC). — 10 km N Fés, 30. 4. 1940, Bleton leg. (RC). — Ametras (1000 m), B. Seyyel, Pardo Alcaide leg. (NHMB). — Tanger, Rolph leg. (IPE).

Tunis: Le-Kef, VII. 1936, Normand leg. (NHMB).

10. *Dasytidius bourgeoisi* (SCHILSKY, 1896) comb. n.

(Figs 10, 26, 81)

Dasytiscus (*Dasytidius*) *Bourgeoisi* SCHILSKY, 1896: 72

Species distinctive in the shape of pronotum, differing from *D. vestitus* (KIESW.) in seemingly single pubescence being finer and shorter than in *D. vestitus*; antennal segments less serrate.

Upper surface with dark-green lustre, legs testaceous, palps piceous in greater part, antennal scape more or less darkened, following segments testaceous, 4 (5)–11 gradually infusate toward apex. Integument with dense texture, pubescence nearly decumbent, yellowish, fine and short, dense but not completely covering upper surface; semi-erect longer hairs most prominent at sides and at posterior third of elytra where they have sericeous lustre; marginal fringe prominent on pronotum, less on elytra.

♀ (Fig. 10). Head with flattened eyes, with very dense and fine coriaceous texture, antennal segments not strongly transverse (Fig. 26), hair on head surface arranged toward centre. Pronotum conical, base subarcuate, sides straight, apex shallowly emarginate to straight, upper surface with very dense and fine coriaceous textures, side margins regularly and finely denticulate, denticles distinct, pubescence arranged into a U-shaped line. Elytra nearly parallelsided, inconspicuously impressed and constricted beyond humeri and widened at posterior third, sutural angles scarcely rounded. Pygidium strongly concial, apex briefly and broadly incised. Sternum VII briefly produced in middle of hind margin. Seminal duct sclerotized, very long and slender (Fig. 81). Length 3.1–3.4 mm, width 1.1–1.2 mm. Male unknown.

Distribution: Spain (?), Morocco

Types lost. Schilsky (1896) gives "In Spanien. 1 Ex von Puton an Bourgeois geschickt...".

Other material. Morocco: Meknes, 16–26. 6. 1979, J. Witkowski leg. (2 IZW, 1 KMB). — Tanger (1 RC). — Tanger, Rolph leg. (1 KMB).

Remarks. SCHILSKY'S description of this species corresponds in nearly all details with the specimens I had at disposal. Locality data „Spanien“ may virtually refer to the southernmost Spain, or they may be unreliable.

11. *Dasytidius pardoï* sp. n.

(Figs 11, 27, 38, 71, 83)

Species most similar to *D. vestitus*, but sides of pronotum strongly rounded (chiefly in male), semi-erect hair occur also in pronotum, antennal segments smaller.

Upper surface with light greenish lustre, legs testaceous, tarsi partly infusate, antennal scape black, segments 2–3 testaceous, 4–11 gradually darkened, mouthparts piceous. Integument with dense texture; pubescence clearly dual also on pronotum and sometimes on head. Head with dense coriaceous texture. Pronotum arcuate at base and sides, apex straight, texture as on head but somewhat finer on disc, side margins with fine, irregular denticles, marginal fringe well developed, pronotal pubescence arranged towards a point close to base. Elytra with dense, fine and flat punctures forming transverse wrinkles, sutural angles rounded respectively, semi-erect hairs subseriately admixed into subdecumbent pubescence.

♂ (Fig. 11). Antennal segments (Fig. 27) stouter, eyes more prominent, pronotum nearly round in outline. Pygidium suboblong in outline, sides weakly converging. Hind margin of sternum VII arcuate, median process of sternum VIII (Fig. 38) very long and slender, base somewhat widened. Tegmen unknown. Spicular fork nearly triangular in outline, spiculae as long as fork proper, Phallus in side view (Fig. 71) with acuminate incurved apex; internal sac unknown. Length 3.0–3.2 mm, width 1.0–1.1 mm.

♀. Antennal segments more slender, smaller, eyes less prominent, pronotum more transverse, sides less rounded. Pygidium subtriangular in outline but apex truncate and broadly incised. Sternum VII briefly produced at apex. Seminal duct of distinctive armature (Fig. 83). Length 2.9–3.5 mm, width 1.0–1.2 mm.

Distribution: Morocco

Types. Holotype, ♂ (ZSM), “Talambot, Maroc esp., VI. 1951, A. Pardo leg.”. Paratypes, 8 spec. (2 KMB, 6 RC) same data as Holotype.

12. *Dasytidius gracilis* (ESCALERA, 1914) comb. n.

(Figs 12, 28, 39, 55, 72, 82)

Dasytiscus gracilis ESCALERA, 1914: 246

Slender species resembling *D. ragusai* (PROCH.), but terminalia quite different; sexes uneasy to differ from one another habitually.

Coloration black, upper surface with slight bronze to greenish lustre, legs (except apices of pretarsi and claws) completely testaceous in females, femora piceous in males; mouthparts and scape blackish, segments 2–3 (–4) rufotestaceous or rufopiceous, following blackish. Integument with very dense and fine texture; pubescence nearly same as in *D. ragusai*, i.e. fine, short, apparently single. Head somewhat subrostrate, antennal segments small, 5–10 submoniliform, three terminal ones form an indicated club, surface of head as in *D. ragusai*. Pronotum subconical, subarcuate at base, apex straight, marginal denticles strongly reduced, unstable in both number and shape, marginal fringe fine, surface with dense micro-sculpture composed of puncturation and granularity, so that the surface is semimat, pubescence appears finer than on elytra, it is arranged toward a point nearer base. Elytra gradu-

ally widened towards apex in both sexes, upper surface with rather coarse and dense puncturation, intervals with microsculpture; marginal fringe indistinct.

♂ Eyes slightly prominent, antennal segments stouter. Pronotum more transverse and more arcuate at sides. Elytra less widened towards apex, sutural angles distinct, femora (always?) piceous. Pygidium transverse, sides slightly converging, apex broadly and shallowly emarginate. Sternum VII weakly produced at hind margin, VIII with simple median process (Fig. 39). Spicular fork with fine walls. Tegmen (Fig. 55) angulate at sides of anterior third. Phallus in side view (Fig. 82) arched on dorsal side; apex incurved; internal sac with numerous elongate spinules. Length 2.2–2.3 mm, width 0.7–0.8 mm.

♀ (Fig. 12). Eyes flattened, antennal segments smaller (Fig. 28). Pronotum less conical, less transverse, sides subarcuate. Elytra more widening towards apex, sutural angles indistinct, femora (always?) light. Pygidium rather semicircular in outline, apex briefly and shallowly emarginate. Sternum VII subarcuate at hind margin. Seminal canal sclerotized, with asteroidal bodies interiorly (Fig. 82). Length = 2.34–2.61 mm, width 0.8–0.9 mm.

Distribution: Morocco, Algeria

Types deposited in Madrid, but they are unaccessible. Escalera (1914: 246) gives: "Marraqesh (Escalera). Mi colección".

Other material. Morocco: 7 km N Agadir, 7.4.1981, R. Constantin leg. (6 RC, 5 KMB). — Tioulit, Anti-Atlas, 15.4.1981, R. Constantin leg. (13 RC, 2 KMB). — Dj. Amsitten, 16–18.5.1926, H. Lindberg leg. (5 MUH).

Algeria: Sahara, 20 km E Ain Sefra, 25.4.1987, J. Strejček leg. (5 KMB).

Remarks. This species has been redescribed basing on the material collected and determined by Dr. R. CONSTANTIN, without whose kind help the species would remain unknown to me.

13. *Dasytidius ragusai* (PROCHÁZKA, 1895) comb. n.

(Figs 13, 17, 29, 40, 41, 56, 57, 73, 74, 84)

Dasytiscus Ragusae PROCHÁZKA, 1895: 139

Dasytiscus Ragusae SCHILSKY, 1900: 2 (described anew!); REITTER, 1902: 212; PORTA, 1929: 124.

Dasytiscus (Dasytidius) Ragusae: PIC, 1937: 54

Dasytiscus (Dasytidius) Gestroi SCHILSKY, 1898: 75, syn. n.

Very small species with fine pubescence and slender extremities and with distinctive structure of terminalia.

Coloration black (upper surface with greenish lustre, legs testaceous), apex of pretarsi and claws infuscate; mouthparts infuscate (rufotestaceous, rufopiceous to piceous); antennal scape fuscous, segments 2–3 (–5) testaceous, following gradually darkened. Integument with almost fine, dense texture; pubescence light (whitish) and dual, suberect hairs sub seriatly admixed into decumbent pubescence on elytra. Head rather transverse, eyes not very prominent; surface with dense irregular puncturation; antenna (Fig. 29) very slender. Pronotum transverse, broadest near or in front of base which is arcuate; sides converging anteriorly, marginal denticles small and reduced, marginal fringe fine and distinct, upper surface with scattered irregular punctures throughout a longitudinal lustrous median stripe, but densely and finely scabrose on sides; pubescence arranged towards a point situated just beyond centre. Elytra with not very regular, rather indistinct puncturation, punctures tend to have transverse wrinkles, intervals with indistinct microsculpture; tips rounded respectively.

♂ (Figs 13, 17). Extremities stouter, elytra parallelsided; pronotum less transverse, sides more straight. Pygidium nearly oblong, apex weakly emarginate. Sternum VII weakly tapered medioapically, VIII with median process being widened at base or not (Figs 40, 41). Spicular fork slender, spiculae strongly curved. Tegmen (Figs 56, 57) of a type of *D. indutus*. Phallus in side view (Figs 73, 74) hooked at apex; internal sac with several large spines. Length 1.9–2.4 mm, width 0.6–0.9 mm.

♀ Extremities more slender, finer; elytra widened and strongly convex posteriorly; pronotum more transverse, sides more rounded. Pygidium converging, apex briefly and shallowly emarginate. Sternum VII weakly produced at apex. Seminal canal sclerotized, with distinctive structure (Fig. 84). Length 2.1–2.6 mm, width 0.7–0.9 mm.

Distribution: Tunis, Sicily, Libya, Algeria (?).

Type material. *Dasytiscus Ragusae* PROCHÁZKA: types most probably lost. Procházka (1895:139) gives: “Patria: Sicilia” and... “Trapani nel mese di agosto”, most likely collected by Enrico Ragusa.

Dasytiscus Ragusae SCHILSKY. Lectotype, ♂ (ZMB), “Palermo, Ragusa” (Schilsky’s MS); “Ragusae * Schils.” (Schilsky’s MS). 1 paralectotype (ZMB), “Palermo, Ragusa”.

Dasytiscus Gestroi. Lectotype, ♂ (ZMB), “Tunisi, V. 1887, G. L. Doria” (printed); “Gestroi Schilsky” [no usual asterisk!] (Schilsky’s MS). 6 paralectotypes (5 ZMB, 1 TMB) “Tunis Gestroi”. — 10 paralectotypes (MNG) “Tunisi Dint. VI. 1881, G. eL. Doria”.

Other material. Tunis: Le Kef (11 NHMB, 2 IPE, 8 KMB). — El Feidja (1 TMB, 1 NHMB, 1 KMB). — Elkesra, 5.6.1982, J. Picka leg. (1 KMB). — Gafsa, 1900, Pic leg. (1 ZMB). — Teboursouk (1 NHMB, 6 IPE). — Boghari, V. 1897, Chobaut leg. (1 TMB). — Tunis, Champion leg. (4 BMNH). — El Djem, Champion leg. (BMNH). — Kairouan, Champion leg. (2 BMNH).

Sicily: “Sicilia” (1 NHMB).

Algeria: “Algier, Leder Reitter” (2 TMB)

Libya: “Tripolis, V. 1931, W. Eichler leg.” (1 IZW)

Remarks. Schilsky (1900) completely ignored Procházka’s description of this species and described it anew (“Auf Sicilien von Herrn Ragusa eingesandt und ihm zu Ehren benannt”). On top of it, he forgot that he had studied this species in 1898 under name “*Dasytiscus gestroi*”.

14. *Dasytidius syrticus* (BOURGEOIS, 1885) comb. n.

(Figs 14, 18, 30, 31, 44, 45, 85, 86)

Dasytiscus syrticus BOURGEOIS, 1885: 256, 266

Dasytiscus (Dasytidius) neglectus SCHILSKY, 1897: 84 syn. n.

Dasytiscus (Haplothrix) syrticus: PIC, 1937: 55

Species without distinctive characters, body nearly guttate in outline, extremities long and light. Female unknown.

Upper surface with greenish lustre, legs pale testaceous, scape and mouthparts black, antennal segments 2–3 (–4) pale testaceous, 5–11 black or fuscous. Integument sometimes slightly bronze lustrous, with moderately dense and fine texture; pubescence fine, whitish, decumbent, apparently single but somewhat more erect hairs present on elytra, even though these are hard to differ.

♀ (Figs 14, 18). Head with not prominent eyes, surface with fine texture, antennal segments 5–10 subserrate (Figs 30, 31), each of them nearly as long as wide. Pronotum strongly convex, slightly transverse, base and apex subarcuate, sides angulate, broadest spot nearer base, sides converging towards base; surface indistinctly, densely punctate, with microsculpture, sides of surface rather granulate; marginal denticles strongly reduced (partly invisible due to strong pronotal convexity), marginal fringe very fine; pubescence arranged towards a point nearer base. Elytra widened posteriorly, apices subtruncate, sutural angles strongly rounded respectively, surface with shallow, not regular puncturation, passing into transverse wrinkles; marginal fringe fine and little distinct.

Pygidium (Fig. 45) strongly converging towards apex which is sometimes shallowly emarginate. Sternum VII scarcely produced medioapically (Fig. 44). Seminal canal sclerotized with specific sculpture (Figs 85, 86). Length 2.6–3.1 mm, width 1.0–1.2 mm.

Distribution: Algeria, Tunis

Types. Holotype, ♀ of *D. syrticus* (MHNP), "s. Gabés, Bir Marboth" (Bourgeois' MS); "*Dasytiscus syrticus* Bourg." (Bourgeois' MS).

Holotype, ♀ of *D. neglectus* (ZMB), "Algier, Pic" (Pic's MS); "neglectus * Schils." (Schilsky's MS, black margin).

Other material. Tunis: Gafsa, V. 1948, R. Demoflys leg. (2 RC, 1 KMB).— Merouna, Vauloger leg. (1 MHNP, 1 KMB). — "Dejean, Heyden" (3 MHNP).

Remarks. This species has been very often confused with *D. petrowi* (Pic). Unfortunately, a male specimen of *D. neglectus* mentioned by SCHILSKY (1897), has not been found in his collection.

15. *Dasytidius nigrofemoralis* (Pic, 1894), comb. n.

(Figs 15, 19, 32, 33, 46, 47, 59, 75)

Dasytiscus vestitus var. c. *nigrofemoralis* Pic, 1894: 112

Dasytiscus (Dasytidius) nigrofemoratus: SCHILSKY, 1898: 76

Dasytiscus Wartmanni REITTER, 1897: 219 syn. n.

Dasytiscus (Dasytidius) Wartmanni: REITTER, 1902: 212

This species resembles at first sight representatives of the genus *Parathrix*; also males widened posteriorly, the species seems allied with *D. syrticus* (BOURGEOIS).

Coloration black, upper surface with aeneous lustre; femora infusate to nearly piceous, but their apices remain usually lighter; femora and tarsi pale testaceous, apex of pretarsi and claws infusate; scape and mouthparts blackish, antennal segments 2–3 usually lighter than following which are gradually darkened towards apex, 7–10 nearly always blackish. Integument with very dense sculpture, pubescence whitish, short and fine, relatively sparse; apparently single but more erect hairs may be distinguished on elytra. Head with slightly prominent eyes, upper surface with almost longitudinal rugosity, antennal segments never distinctly transverse. Pronotum subarcuate at base, sides strongly converging forwards (pronotum broadest near base), apex straight; side margins with strongly reduced denticles, marginal fringe long and fine; upper surface with very dense and fine, irregular, granulate or rugose texture. Elytra at least slightly dilated posteriorly in both sexes, side margins bordered up to apex; surface with nearly regular shallow puncturation which tends to form transverse wrinkles; intervals with microsculpture; surface therefore little lustrous; sutural angles weakly rounded respectively.

♂ (Fig. 15), Pronotum less transverse, eyes somewhat more prominent, antenna much stouter (Fig. 32). Pygidium nearly oblong, or subtrapeziform. Sternum VII subarcuate at hind margin, VIII with not very long median process which is widened at base. Spicular fork with slender walls. Tegmen relatively very broad, gradually tapering apex at distal portion (Fig. 59). Phallus in side view (Fig. 75) sinuate dorsally as well as ventrally; internal sac with very numerous, small but distinct spinules. Length 2.3–2.7 mm, width 0.9–1.0 mm.

♀ (Fig. 19). Pronotum more transverse, eyes less prominent; antenna much more slender (Fig. 33). Pygidium nearly trapeziform, with slightly emarginate apex (Fig. 47). Sternum VII scarcely produced medioapically (Fig. 46). Internal copulatory organs unknown due to mishandled dissection (possibly membranous). Length 2.8 mm, width 1.2 mm.

Distribution: Algeria

Types (MHNP). Lectotype, ♂: "Mecheria" (Pic's MS); "type" (yellow label, Pic's MS); "v. nigrofemoralis Pic in litt" (Pic's MS); "D. v. nigrofemoralis, Bourg. vidit" (Pic's MS).

Paralectotypes (3 spec.), same data as Lectotype.

Type of *D. wartmanni*. Holotype, ♀ (TMB), "Algerien, Mecheria" (printed); "*Dasytiscus Wartmanni* m. n. sp. 1897" (Reitter's MS).

Other material. Algeria: Ain Sefra, Pic leg. (1 ZMB).

16. *Dasytidius sparsepubens* (PIC, 1924:2) comb. n.
(Figs 16, 34, 42, 43, 58, 76, 87)

Dasytiscus indutus var. *sparsepubens* PIC, 1924: 2

This species with stout legs is very distant from all species described in the present paper and possibly forms a separate species group; it also resembles a *Parathrix*-species in the shape of the terminalia; the shape of phallus especially resembles *Dasytidius ethologus* MAJER (1989b).

Coloration black, upper surface with feeble aeneous (greenish to brassy) lustre; femora piceous to blackish, tibiae and tarsi rufopiceous, scape and mouthparts blackish, antennal segments 2–4 (–6) rufopiceous, 7–11 piceous to blackish. Integument with very dense puncturation, pubescence pale, semi-villose, clearly dual. Head with moderately prominent eyes, surface with dense granulosity, antennal segments 5–10 subserrate, penultimate ones transverse. Pronotum distinctly transverse, not very strongly convex (upper surface nearly plane at sides), base subarcuate, sides strongly and evenly arcuate, pronotum broadest across middle; apex straight; surface with fine puncturation which is scattered on a medial longitudinal stripe, and condensed sideward; side margins with dense but very reduced denticles; marginal fringe very long and almost irregular, semi-decumbent pubescence on surface arranged towards a point at the very base or very near to it. Elytra with very dense and fine texture which is mostly formed by transverse wrinkles, whole upper surface with microsculpture; pubescence clearly dual, semi-erect hairs abundant, subseriatly intermixed, marginal fringe distinctive and relatively long, elytral apex rounded, sutural angles obtuse.

♂ (Fig. 16). Parallelsided. Antenna stouter (Fig. 34), pronotum less transverse, sides more arcuate. Pygidium nearly oblong to subtrapeziform. Sternum VII subarcuate at hind margin, VIII (Fig. 42) with abbreviate median process. Spicular fork (Fig. 43) of a peculiar structure. Tegmen (Fig. 58) rather unfamiliar to that in other *Dasytidius*-species. Phallus in side view (Fig. 76) very slender, almost sinuate; internal sac with several larger spines. Length 2.9–3.0 mm, width 1.0–1.1 mm.

♀. Widened and more convex posteriorly. Antenna more slender, pronotum more transverse; sides less arcuate. Pygidium nearly semicircular in outline, apex almost deeply emarginate. Sternum VII scarcely produced medioapically. Internal copulatory organs of a very expressive structure, surface of bursa copulatrix has no analogy within the *Dasytidius*-species examined (Fig. 87). Length 2.9–3.2 mm, width 1.1–1.2 mm.

Distribution: Libya

Types. Pic (1924) gives: "Type unique au Musée de Turin". The type with data "Cirenaica: Merg, avril 1922 Dr. E. Festa" has not been at disposal but Pic's metatypes were studied.

Other material. Libya: Banghasi, Fuehat, V. 1926. V. Zanon leg. (3 KMB, 10 NMG). – El Merg., Vadi Menegr., 12.4.1922, F. Silvestri leg. (3 NMG). – Gharib, 14.4.1922, F. Silvestri leg. (1 NMG).

Acknowledgements

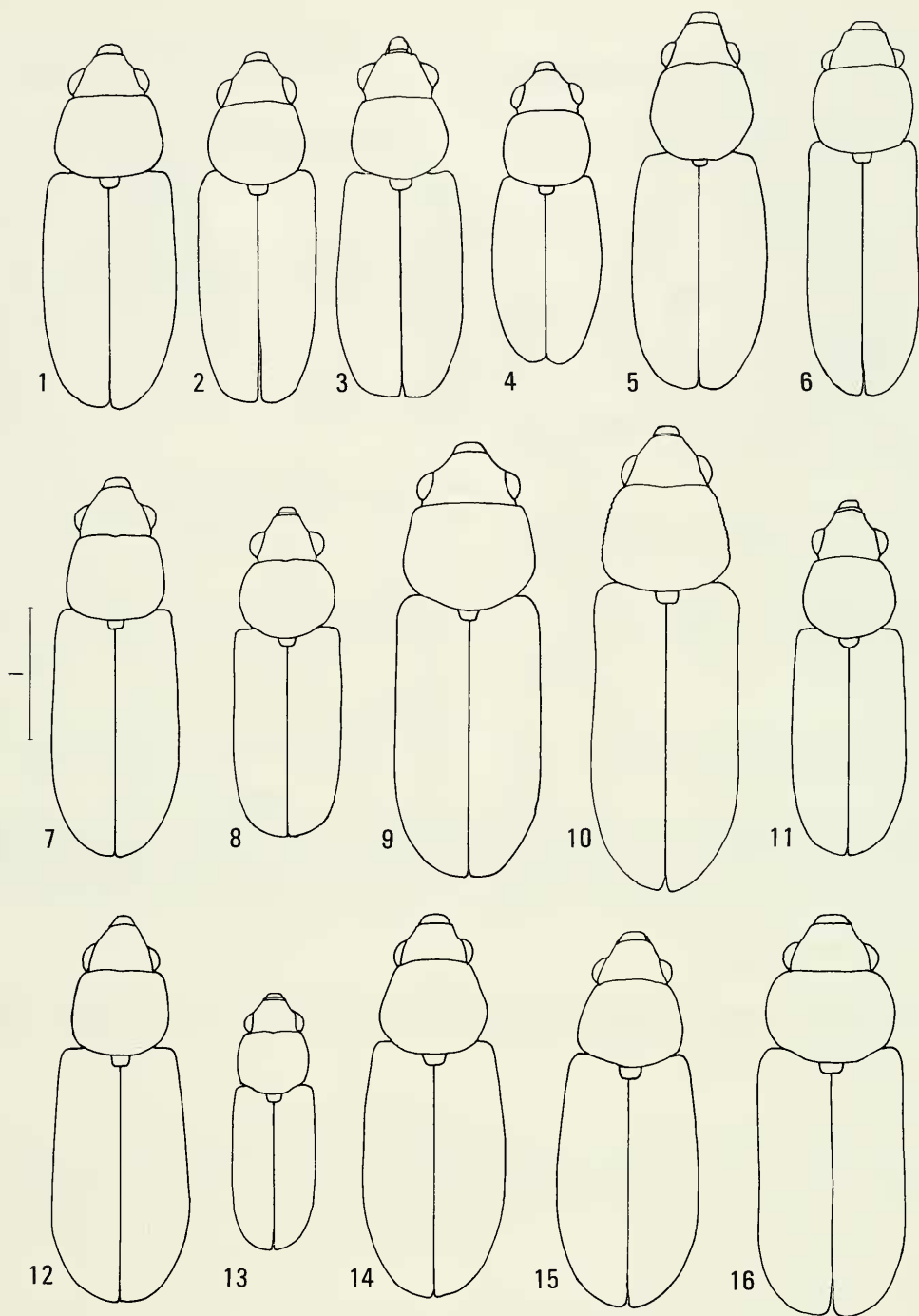
My thanks are due to all who kindly placed material at my disposal. They are: Dr E. R. PEACOCK (BMNH), Dr L. DIECKMANN † (IPE), Dr A. SLIPIŃSKI (IZW), Dr C. LEONARDI (MCM), Dr J. J. MENIER (MHNP), Dr R. POGGI (MNG), Dr O. BISTRÖM (MUH), Dr M. BRANCUCCI (NHMB), Dr J. JELÍNEK (NMP), Dr Z. KASZAB † (TMB), Dr R. CONSTANTIN (RC), Dr F. HIEKE (ZMB), Dr G. SCHERER (ZSM).

Literature

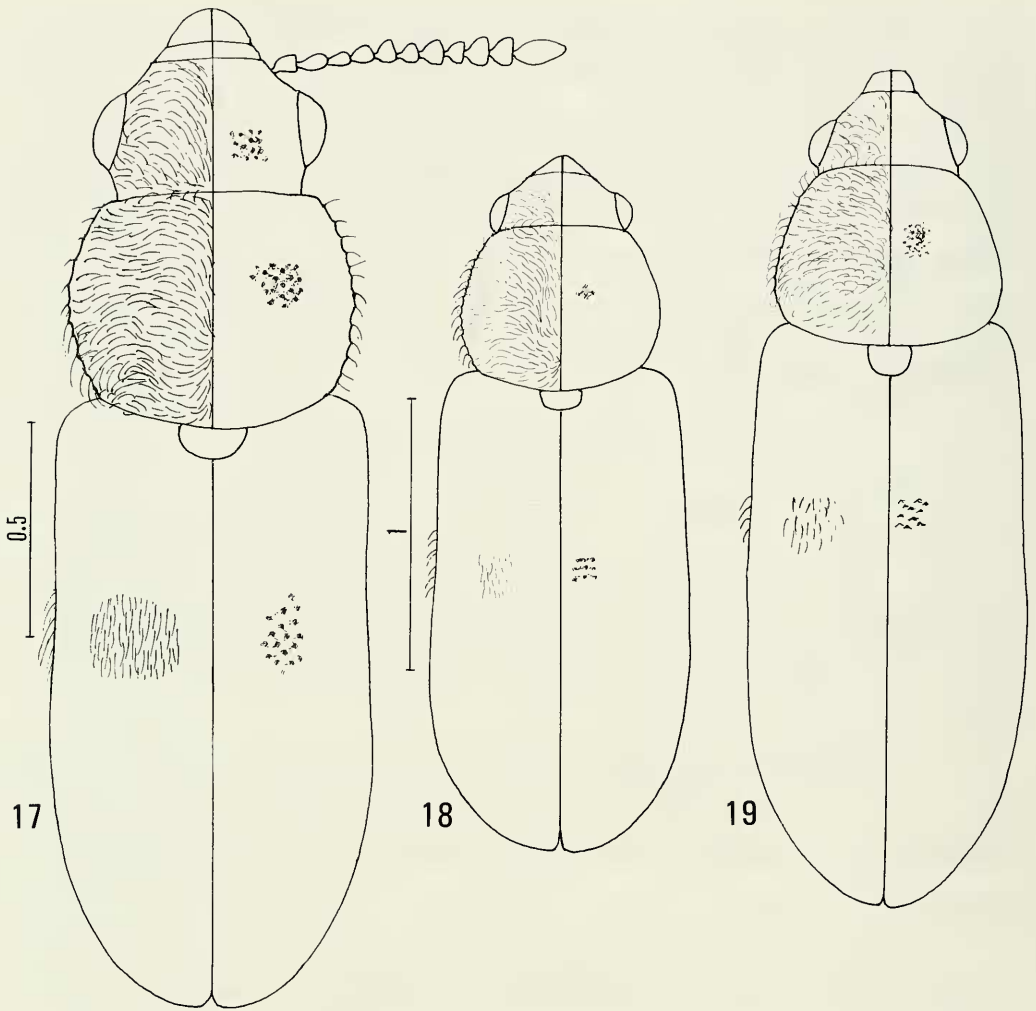
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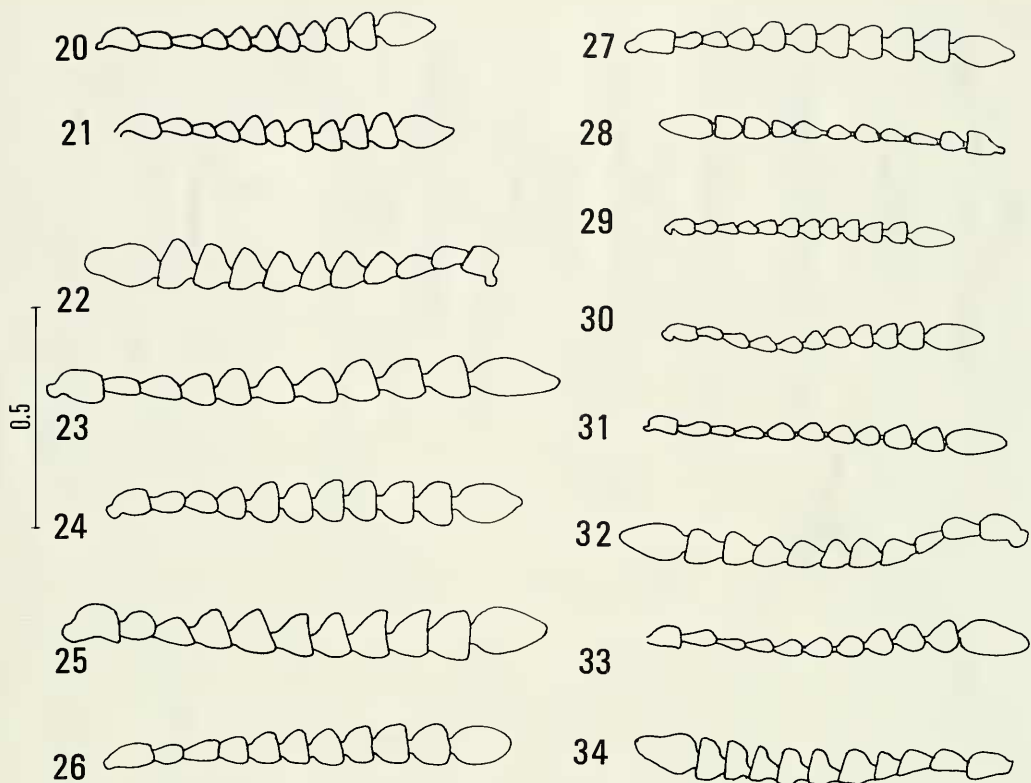
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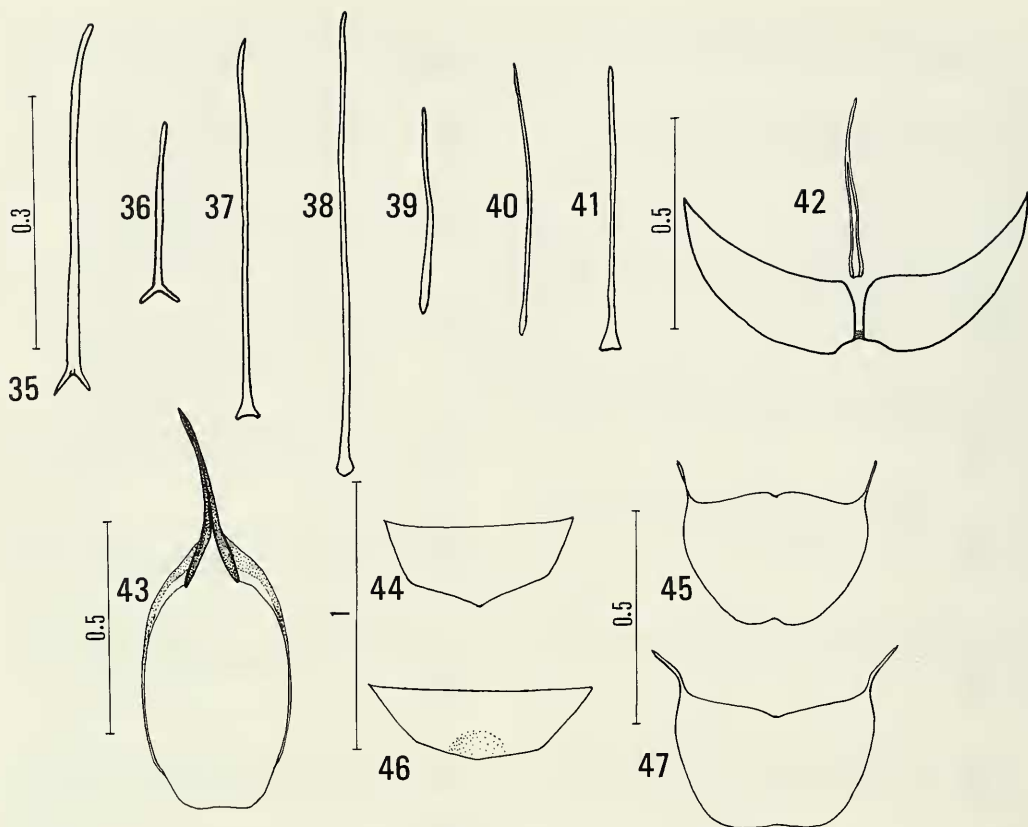
Figs 1–16. Body outline: 1 *Dasytidius petrowi* (PIC, ♂, 2 *D. medius* (ROTTB.), ♂, 3 *D. normandi* sp. n., ♂, 4 *D. melitensis* (BOURG.), ♂, 5 *D. crenulatus* (PIC), ♀, 6 *D. diversimembris* (PIC), ♂, 7 *D. constantini* sp. n., ♂, 8 *D. otini* sp. n., ♂, 9 *D. vestitus* (KIESW.), ♂, 10 *D. bourgeoisii* (SCHILS.), ♀, 11 *D. pardoi* sp. n., ♂, 12 *D. gracilis* (ESC.), ♀, 13 *D. ragusai* (PROCH.), ♂, 14 *D. syrticus* (BOURG.), ♀, 15 *D. nigrofemorialis* (PIC), ♂, 16 *D. sparsepubens* (PIC), ♂. Scale = 1 mm.



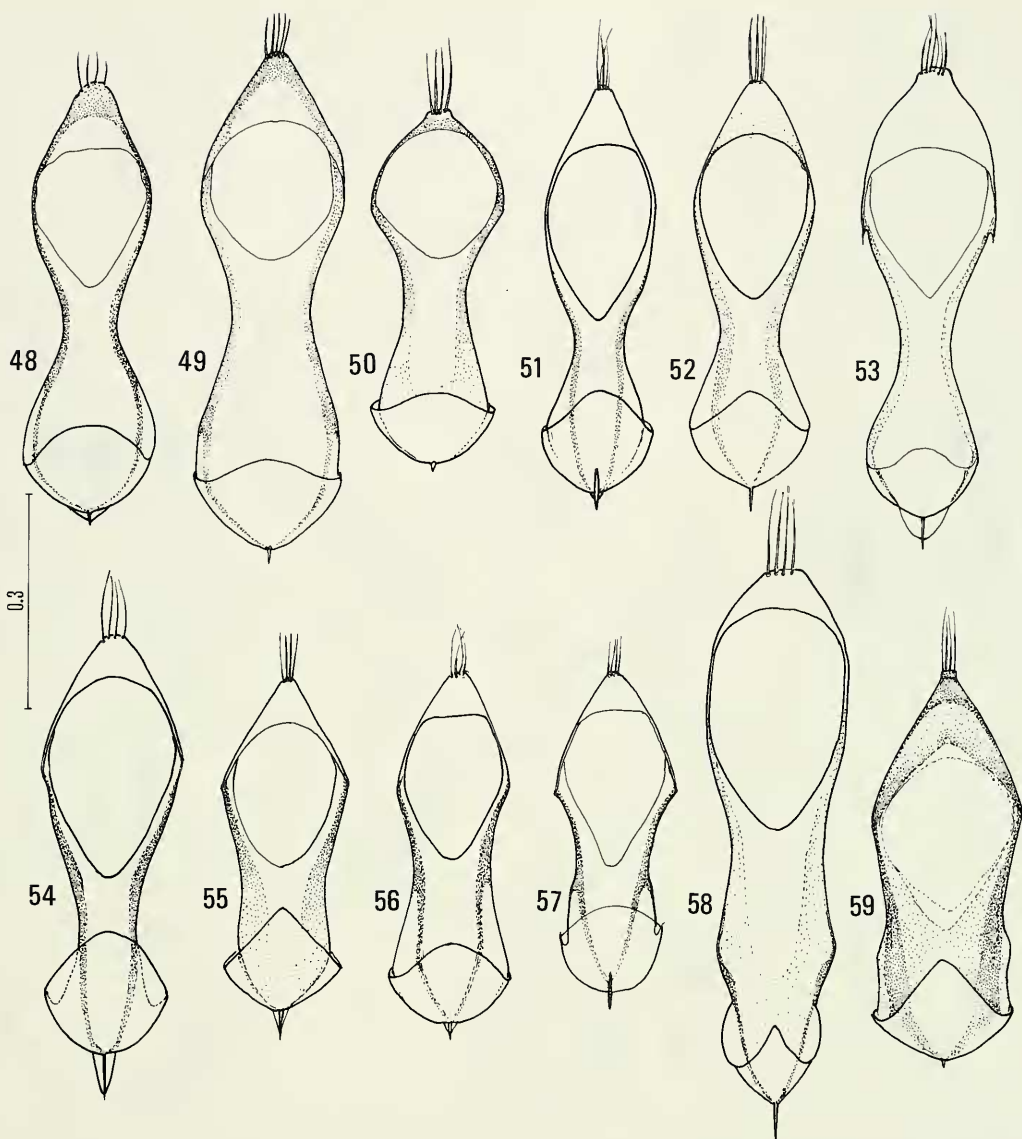
Figs 17–19. Body outline, semi-schematic: 17 *Dasytidius ragusai* (PROCH.), ♂, 18 *D. syrticus* (BOURG.), ♀, 19 *D. nigrofemoralis* (PIC), ♀. Scale in mm.



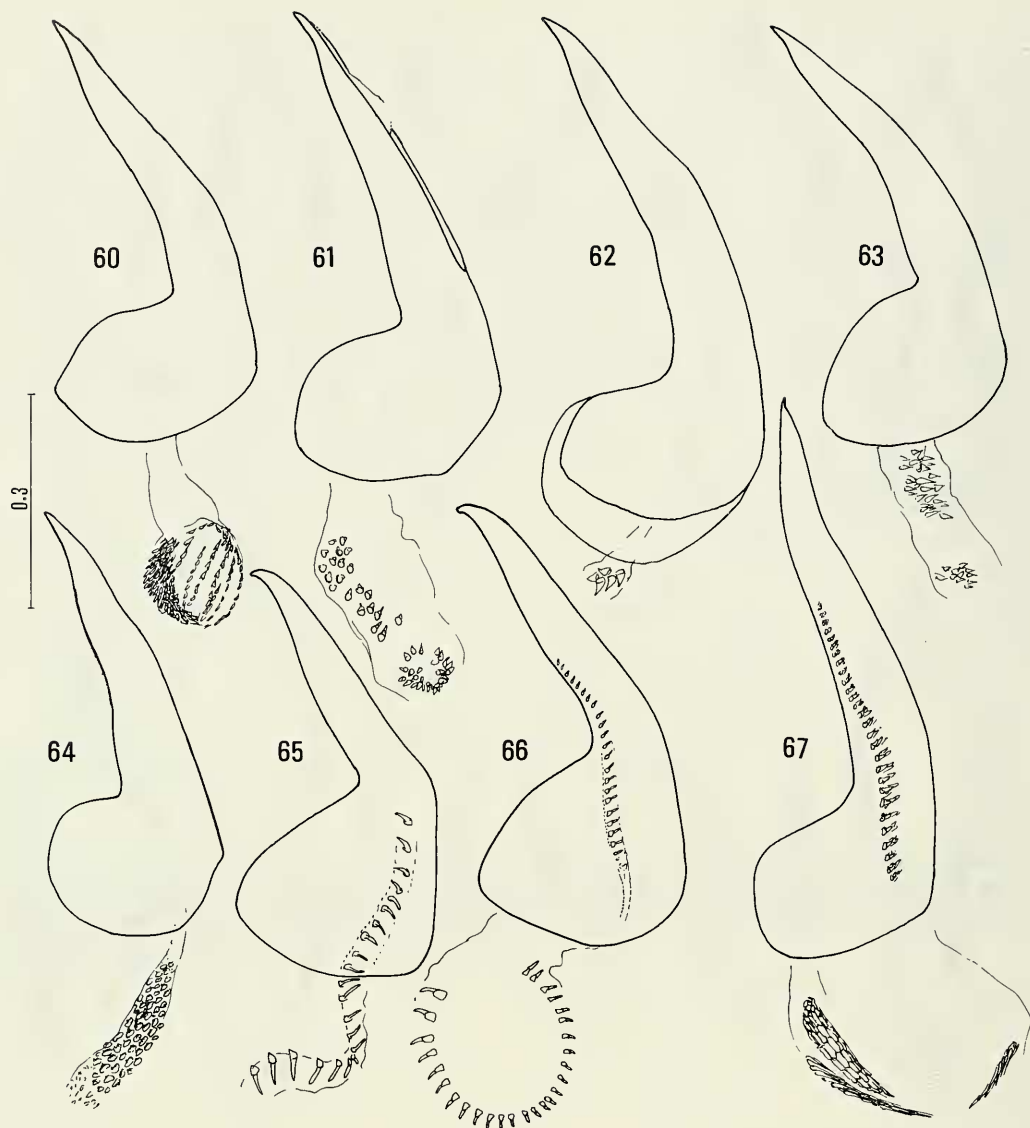
Figs 20–34. Antenna: 20 *Dasytidius petrowi* (PIC), ♂, 21 *D. medius* (ROTTB.), ♂, 22 *D. diversimembris* (PIC), ♂, 23 *D. constantini* sp. n., ♂, 24 *D. otini* sp.n., ♂, 25 *D. vestitus* (KIESW.), ♂, 26 *D. bourgeoisi* (SCHILS.), ♀, 27 *D. pardoii* sp. n., ♂, 28 *D. gracilis* (ESC.), ♂, 29 *D. ragusai* (PROCH.), ♂, 30, 31 *D. syrticus* (BOURG.), ♀, 31 *D. nigro-femoralis* (PIC), ♂, 33 same species, ♀, 34 *D. sparsehirsutus* (PIC), ♂. Scale = 0.5 mm.



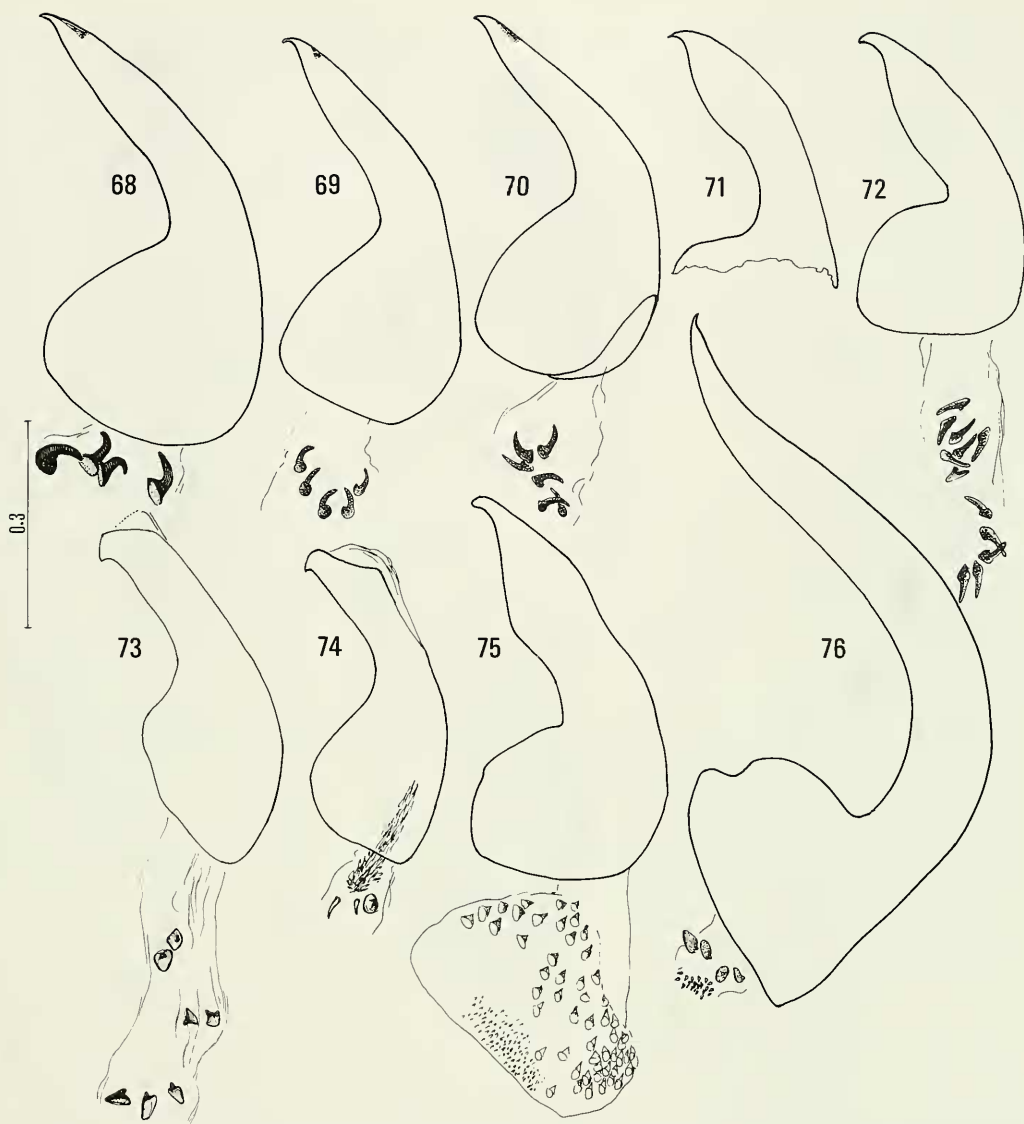
Figs 35–45. Median process of male sternum VIII (35–41; male sternum VIII (42); spicular fork (43); female sternum VII (44, 46); female pygidium (45, 47): 35 *D. normandi* sp. n., 36 *D. crenulatus* (PIC), 37 – *D. otini* sp. n., 38 *D. pardoi* sp. n., 39 *D. gracilis* (ESC.), 40, 41 *D. ragusai* (SCHILS.), 42, 43 *D. sparsepubens* (PIC), 44, 45 *D. syrticus* (BOURG.), 46, 47 *D. nigrofemorals* (PIC). Scale in mm.



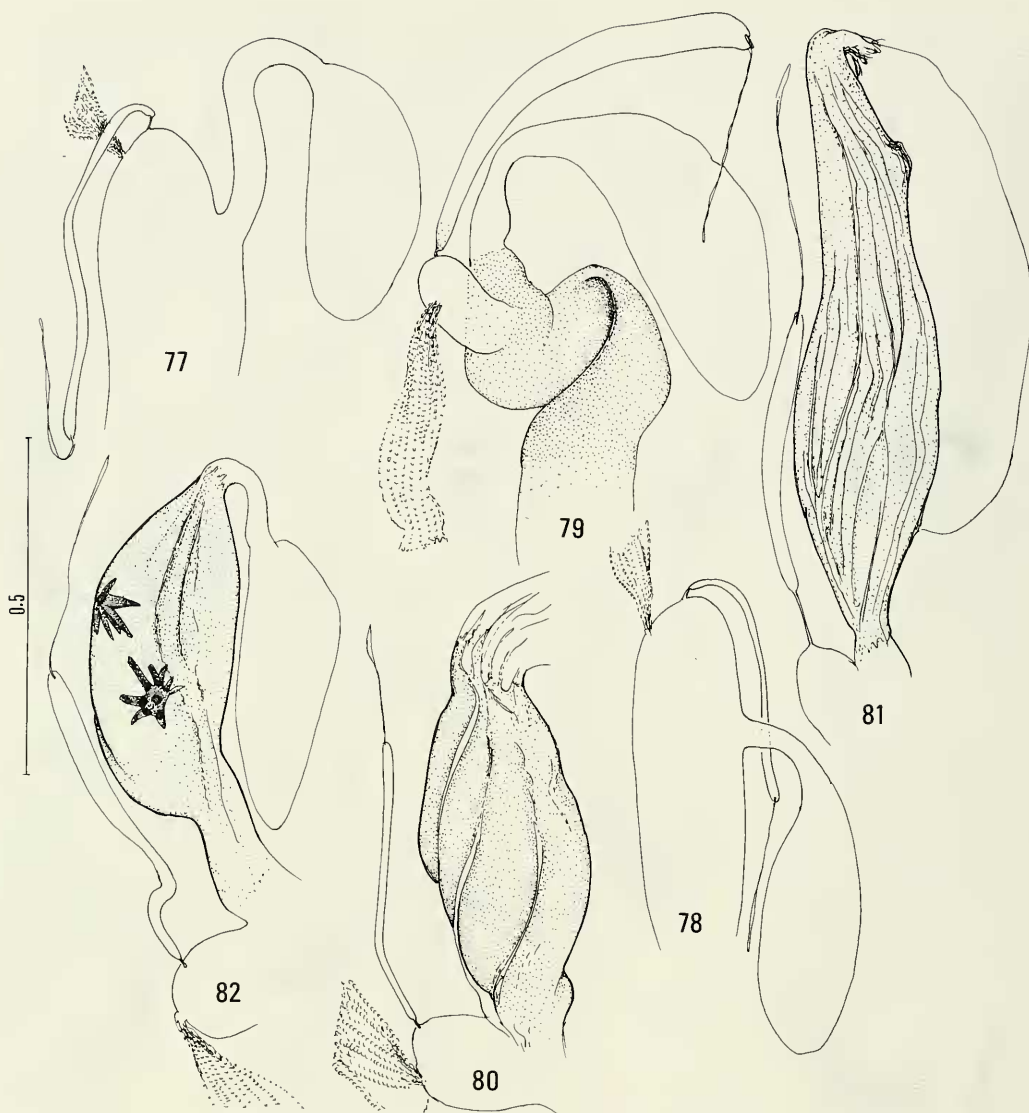
Figs 48–59. Tegmen, dorsal view: 48 *D. medius* (ROTTB.), 49 *D. normandi* sp. n., 50 *D. crenulatus* (PIC), 51 *D. diversimembris* (PIC), 52 *D. constantini* sp. n., 53 *D. otini* sp. n., 54 *D. vestitus* (KIESW.), 55 *D. gracilis* (ESC.), 56 *D. ragusai* (PROCH.), 57 same species, specimen from Libya, 58 *D. sparsepubens* (PIC), 59 *D. nigrofemoralis* (PIC). Scale = 0.3 mm.



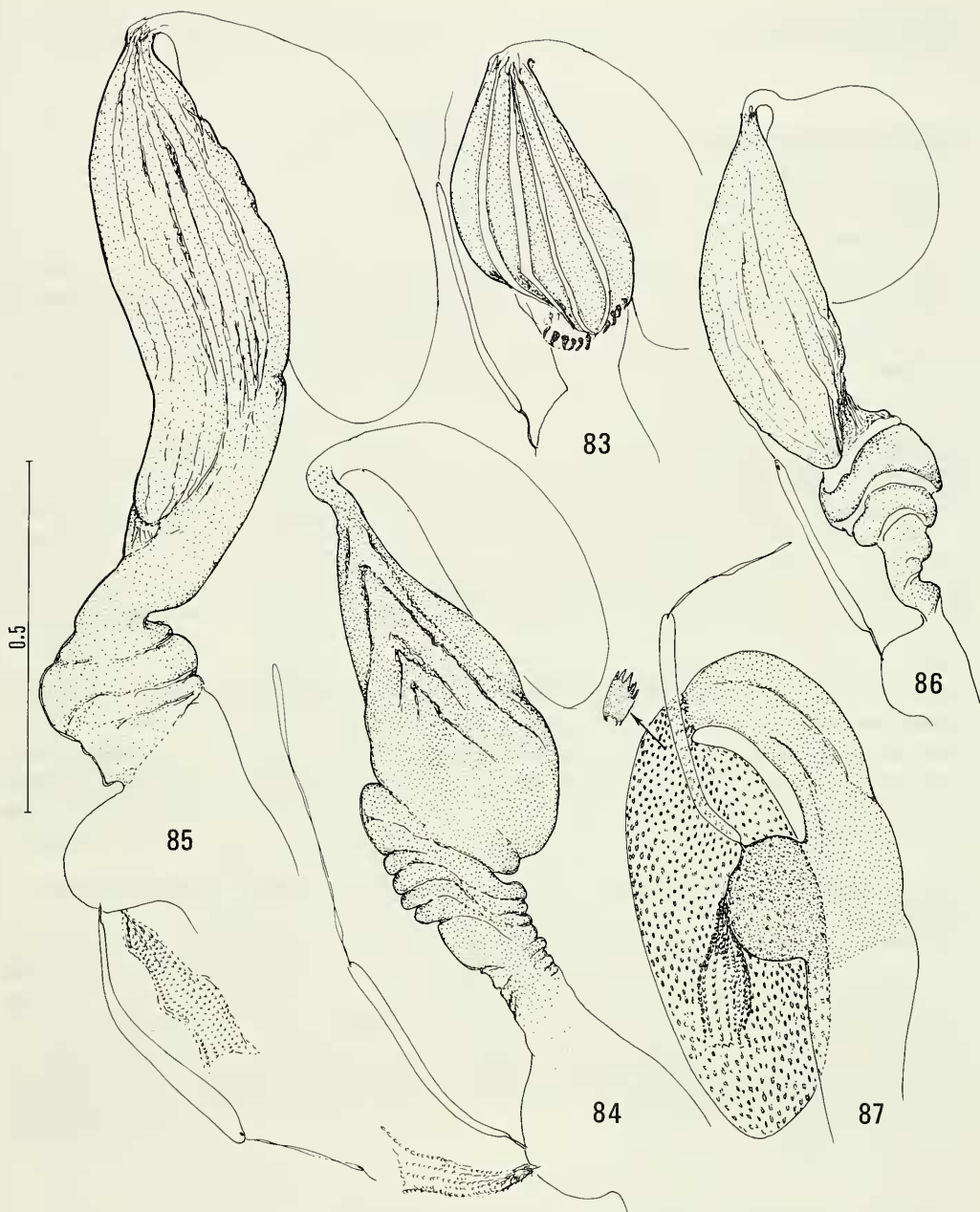
Figs 60—67. Phallus, side view: 60 *Dasytidius petrowi* (PIC), 61 *D. medius* (ROTTB.), 62 *D. normandi* sp. n., 63 *D. melitensis* (BOURG.), 64 *D. crenulatus* (PIC), 65 *D. diversimembris* (PIC), 66 *D. constantini* sp. n. Scale = 0.3 mm



Figs 68–76. Phallus, side view: 68–70 *Dasytidius vestitus* (KIESW.), 71 *D. pardoii* sp. n., 72 *D. gracilis* (ESC.), 73, 74 *D. ragusai* (PROCH.), (74 specimen from Libya), 75 *D. nigrofemoralis* (PIC), 76 *D. sparsepubens* (PIC). Scale = 0.3 mm.



Figs 77–82. Female internal copulatory organs: 77 *Dasytidius medius* (ROTTB.), 78 *D. melitensis* (BOURG.), 79 *D. crenulatus* (PIC), 80 *D. vestitus* (KIESW.), 81 *D. bourgeoisii* (SCHILS.), 82 *D. gracilis* (ESC.). Scale = 0.5 mm.



Figs 83–87. Female internal copulatory organs: 83 *Dasytidius pardoi* sp. n., 84 *D. ragusai* (PROCH.), 85, 86 *D. syrticus* (BOURG.) (85 holotype), 87 *D. sparsehirsutus* (PIC). Scale = 0.5 mm.